N00207.AR.003465
NAS JACKSONVILLE
5090.3a

LETTER REGARDING U S EPA REGION IV REVIEW AND COMMENTS ON PRELIMINARY BASIS OF DESIGN AND REMEDIAL DESIGN FOR POTENTIAL SOURCES OF CONTAMINATION 26 AND 27 NAS JACKSONVILLE FL
4/8/1997
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
100 ALABAMA STREET, S.W.
ATLANTA, GEORGIA 30303-3104

I-0020-7565

April 8, 1997

4APT-RIR

MEMORANDUM

SUBJECT: Review of the Preliminary Basis of Design, Remedial Design for Potential Sources of Contamination (PSC's) 26 and 27, Operable Unit 1

FROM: Rick Button, Health Physicist
Office of Radiation, APTMD

TO: Martha Berry, Remedial Project Manager
Federal Facilities Branch, Waste Division

Thank you for forwarding the above mentioned report . I have reviewed it and have a few comments which are discussed below.

The subject of the report involves the cap design for OU1, which includes radiological sources of contamination from the remidiation of various PSC's. During the remediation, contaminated soils/sediments were taken from the various sites and consolidated at OU1. The purpose of the cap is to ensure surface radiation levels are below regulatory guidelines and will prevent contaminant migration per its design specifications.

The primary radionuclide of concern is Radium 226. This radioactive material was used extensively in paints associated with luminous dial markers for aircraft instrumentation. It has a 1600 year half life and is a powerful risk driver. Thorium 232 is another radioactive material present at the site. It has a half life of 1.4E+10 and is present in the cleaning and sandblasting grit that had previously been utilized at the base. It is not as prevalent as Radium 226, nor is it as powerful a risk driver.

Based on my review of the information in the reports, I noted no problems with the two computer models utilized for the determination of cap thickness. Both Microshield and Resrad are and have been utilized for this purpose and we support their use in this design.

I must note that our Section has not conducted any oversight of the remedial assessment activities and only cursory a review of the contractor (Bechtel Environmental). Thus, the above statement is made with the assumption that all procedures and analyses were performed as stated in the reports and were in accordance with applicable quality assurance standards (NUREG 5849) of the nuclear power industry and the Nuclear Regulatory Commission (NRC). Additionally, the results of the models utilized in the cap design process are only as good as the data generated for input. As you know our Section has not conducted remedial oversight for the generation of these data.

My only comment is that the assumption is that the radiological contaminants are assumed to be for the most part uniformly distributed throughout the consolidated soils. Why is this? Is it because of some mixing process, or just an assumption based on what facts?

Also, again based only on my review of the reports, I agree with the summary and conclusions stated by Bechtel regarding the pootential radiological risks and recommended design thickness for the OU1 cap.

It is my recommendation that our Section be involved in oversight of the construction of the cap as well as any other radiological remedial actions that occur at this site.

If you have any questions concerning this memorandum, please contact me at VM9135.